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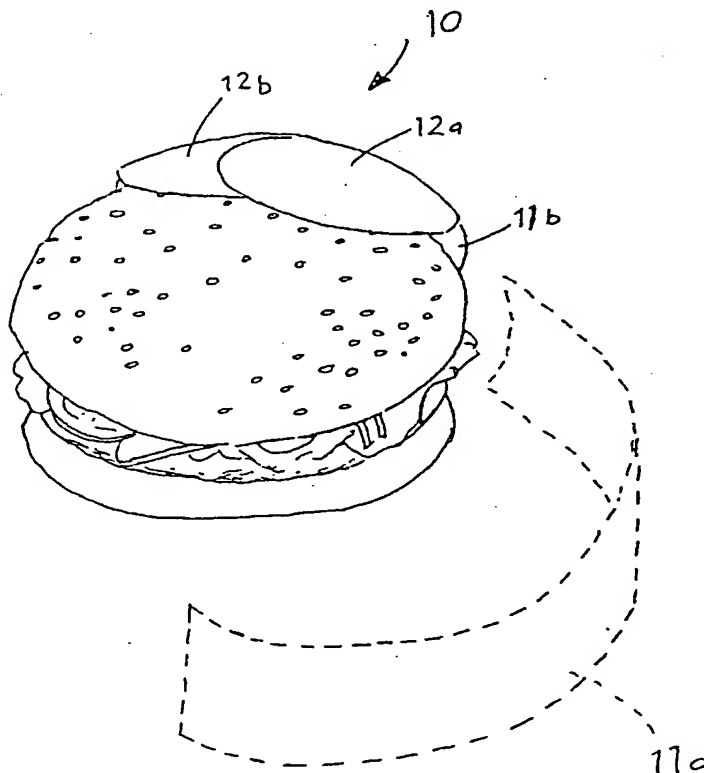
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(54) Title: A CONVENIENCE FOODSTUFF PACKAGE



(57) Abstract: A foodstuff package for convenience foodstuff such as hamburgers/sandwiches. The package includes a foodstuff gripping section (10) which has a wall (11b) with projecting upper flap elements (12a and 12b) and corresponding lower flap elements. These enable an item of foodstuff to be gripped. In a preferred embodiment the package also includes a removable wall (11a) which combines with wall (11b) to form a collar.

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

TITLE OF THE INVENTION

A CONVENIENCE FOODSTUFF PACKAGE

5

BACKGROUND OF THE INVENTION

The present invention relates to a package for use with convenience foods more particularly take out food including hamburgers.

10

It is well known that hamburgers obtained from a fast food or convenience food outlet can be difficult to eat in a tidy manner. Frequently hamburger fillings can fall out from between the buns of the burger, even when held with two hands.

15 Most notably, burger fillings are forced out of the rear of the burger as a bite is taken from the front.

The problem is most noticeable with respect to large burgers that are 'piled high' with a number of fillings. Fillings (including sauce) can end up on the customer's hands, food 20 tray or lap. Likewise when the customer takes a break from eating, the burger can fall apart when temporarily placed on the tray or plate. Reconstruction of the burger may be difficult in order to resume eating.

25

Eating a hamburger in a moving vehicle is an even more difficult undertaking. It is common for a driver to end up with a substantial amount of the filling in his/her lap.

30 Not surprisingly, when a driver approaches a 'drive-thru' fast food outlet, the consideration of how messy the food is to eat may affect the purchase decision. This is important as

statistics suggest that a significant proportion of purchases are made by drive-thru. In one particular fast food outlet, drive-thru may account for over half of total sales.

5 In an attempt to overcome the sometimes difficult construction of 'large' hamburgers by fast food restaurant staff, a collar arrangement can be used to surround the periphery of the bottom bun. Fillings are then systematically added and the collar prevents excess from spilling out of the side of the
10 bun.

The collar solution described above does not solve the problem for a customer of actually eating a burger in a tidy manner.

15 SUMMARY OF THE INVENTION

It is therefore an object of the present invention to provide a hamburger package that facilitates the consumption of a hamburger, particularly at least reducing the amount of
20 filling falling out of the foodstuff during eating.

In one broad aspect of the invention there is provided a foodstuff package including a foodstuff gripping section to (in use) at least partially engage about a peripheral side
25 edge of an assembled item of foodstuff, and means to locate and maintain said gripping section with the foodstuff item prior to consumption of the foodstuff.

It will be appreciated that packaging of the type described
30 herein could be used with a variety of foods, more particularly takeaway foods, e.g. hamburgers, kebabs, sandwiches and the like.

BRIEF DESCRIPTION OF THE DRAWINGS

The foodstuff package according to the present invention will
5 be further described with reference to the accompanying
drawings, wherein:-

Figure 1 illustrates a general view of the typical use
situation for a hamburger package according to the
10 present invention,

Figure 2 is a pattern view of the hamburger package
according to the present invention,

15 Figure 3 is a general view of a hamburger, utilising the
present invention, ready for eating,

Figures 4 - 7 are general and orthographic views of
construction of a second embodiment of the hamburger
20 package according to the present invention and

Figure 8 is a plan view of a paperboard blank for a third
embodiment according to the present invention,

25

DESCRIPTION OF THE PREFERRED EMBODIMENTS OF THE INVENTION

The term 'hamburger' referred to herein encapsulate all
30 similar foods of a sandwich nature such as chicken burgers and
vegetarian burgers etc. 'Hamburger' is simply used as a
convenient descriptive term. The present invention has, as

will be appreciated by those skilled in the art, application to other forms of foodstuffs which are held in the hand for the purposes of consumption.

5 Figure 1 best illustrates a typical usage situation where a fast food customer would expect to encounter a hamburger package according to the present invention. The novel hamburger package is generally denoted 10. Familiar food products accompanying the hamburger B are French fries F and
10 soft drink D.

Hamburger B is often supplied to the customer in a paperboard box package P as illustrated. Alternatively, hamburgers are increasingly supplied in a paper wrapper. In each case the
15 packaging is for temporarily storing the hamburger and retaining heat.

As illustrated in Figure 1 hamburger B is surrounded by collar 11 which forms part of a gripping portion 1
20 Extending therefrom is a top wall formed from two overlapping substantially oval or egg shaped elements 12a and 12b. Correspondingly, underneath the burger is a bottom wall formed from elements 13a and 13b (Figures 2 and 7). These elements 12a, 12b, 13a, and 13b combine with a part 11b of wall 11
25 form the foodstuff gripping section.

To aid construction of the hamburger B by fastfood restaurant staff, the collar 11 and bottom wall 13a/13b may be formed into a circular wall with a partial base. Top wall 12a/12b may remain 'unfolded' to allow firstly a bottom bun and then subsequent fillings to be added into the collar 11, finally topped with a sesame seed bun. In the known way hamburger

has been constructed within collar 11 without fillings spilling out of the side of the burger.

Top wall elements 12a/12b may then be folded down to form a partial cover for the hamburger B, thereby completing the assembly operation.

Hamburger B and its package 10/11 may be wrapped or placed in paperboard box P for presentation to a customer as illustrated by Figure 1.

Figure 2 illustrates a paperboard blank from which a hamburger package can be formed. By way of example, the total length of the blank (from end to end of the collar 11) is about 390mm.

Paperboard exhibits the necessary stiffness to form a suitably strong package as would be required for a single use. Alternatively, materials such as plastic could be used to form the package or even an edible material to accompany the burger.

The first step of assembling hamburger package is forming cylindrical collar 11. The distal end 14 includes a food grade contact adhesive 15 to be adhered to end 16 of collar length 11. In the illustrated embodiment a slit or line 17 is provided as a guide for the edge of end 14 determine the correct diameter of collar 11.

An alternative to an adhesive is a tab and slit arrangement (not shown but of the general type of construction shown in Figure 8 or forming the joining of the lid and base of the packaging appearing in Figure 1).

Substantially oval or egg shaped elements 13a/13b may be creased where each protrudes from collar 11 to overlap Contact adhesive 18 then forms a bond to hold elements 13a/13b in place.

5

At this level of completion the hamburger B may be assembled following which "top" wall elements 12a and 12b may be creased and adhered together (by adhesive 19) to form a partial cover over the sesame seed bun.

10

When the hamburger B is to be eaten by a customer it is intended that a substantial portion of collar 11 be removed to allow a bite to be taken out of the side of hamburger B. To facilitate customer removal of collar 11 a perforated arc 20 is provided adjacent the first pair of top/bottom wall elements 12a, 13a. Correspondingly end 14 of collar 11 can be peeled away from adhesive 15 to remove a portion 11a of collar 11 completely from the gripping portion 10. The removed portion (11a) is illustrated in dotted detail by Figure 3.

20

Hamburger B is ready to eat, the principal advantages of the package being that it provides a gripping section 10 i.e. a place to hold the burger (between top and bottom walls 12/13) and the 'back' wall (the remaining portion 11b of collar 11) to prevent or contain spillage from the rear of the burger as it is eaten from the front.

25

30

It should be noted that all edges potentially contacting a customer's mouth are rounded to avoid injury.

Figures 4 to 7 illustrate the appearance of package 10 with collar portion 11a removed. Figures 4 to 7 also illustrate an

alternative embodiment where collar portion 11a is not provided at all. Such an embodiment may be applicable depending on the requirements of the fast food business or where assembly of a hamburger is not otherwise an issue.

5

In situations where the alternative form of Figures 4 to 7 is to be used, the hamburger B is constructed in the usual manner to the stage that it is ready to be wrapped. Before wrapping (e.g. in a conventional paper wrapper) the package 10 is fitted. Firstly, wall elements 13a and 13b are folded and adhered in closed position or secured using slotted arrangement. The hamburger B is placed on the package and walls 12a are folded down on top of the hamburger. The hamburger and package are then enclosed in the usual paper wrap.

15

It would be possible for the package according to the invention to be completely pre-folded and then the burger 'slotted' into the package before wrapping.

20

Alternatively, the package could be supplied to the customer assembled but not fitted to the hamburger or completely unassembled for the customer to assemble and fit to the hamburger.

25

As discussed, a paperboard blank appears to be the most practical method of constructing the package of the invention simple burger holder as illustrated by Figures 4 to 7, however, further methods and materials may be utilised. Walls 12a/12b and 13a/13b may be interlinked by a suitable slot arrangement thereby avoiding the use of adhesive.

30

Figure 8 illustrates a paper-board blank utilising a slot arrangement. No adhesive is required to maintain the holder together. The interlinking nature of slots 21 and 22 will be apparent from Figure 8.

5

Future embodiments may also only require a single wall in place of 12a/12b and 13a/13b attached at one wall.

10 It will be appreciated that packaging, in addition to its practical advantage, may also be branded accordingly (name of the burger etc) and include any other desirable information.

15 The hamburger package as described can be incorporated into future novel packaging methods. For example, the removable collar section may also have covering panels extending therefrom that completely enclose the burger. Perforations can then separate the covering walls to end up with a hamburger gripping portion 10 as illustrated. This method avoids the need for any paper wrapper or larger paperboard
20 box.

Yet a further embodiment may rely on a two-piece package that slides together to encapsulate the burger like a pharmaceutical capsule. The one piece that remains of the
25 package then has the features of the gripping portion 10 as illustrated.

The hamburger package of the present invention facilitates consumption of a hamburger, particularly in situations such
30 when driving a vehicle (leading to greater safety). Not only is the hamburger filling more reliably retained in the burger

saucers are generally captured or absorbed by the packaging to avoid it escaping onto hands/laps etc.

It has been observed that any increase in materials required
5 (in addition to that known for the construction of mere
collars used to construct a hamburger) is offset by the saving
in napkins used by customers to clean themselves and, overall,
increased customer satisfaction, leading to healthier sales.

CLAIMS

1. A foodstuff package including a foodstuff gripping section to (in use) at least partially engage about a peripheral side edge of an assembled item of foodstuff, and means to locate and maintain said gripping section with the foodstuff item prior to consumption of the foodstuff.
2. A package as claimed in claim 1 wherein the locating means is a collar (11).
3. A packaging as claimed in claim 2 wherein the collar (11) is formed at least in part by the gripping section (10).
4. A package as claimed in claim 1 or 2 wherein the collar (11) includes a portion which is removably attached (20) to the gripping section (10).
5. A package as claimed in claim 2, 3 or 4 wherein the collar (11) is formed by an elongate length the ends (14, 16) of which are provided with engagement means (15) whereby the ends can be engaged together.
6. A package as claimed in anyone of claims 1 to 5 wherein the gripping section (10) includes a side wall (11b) which, in use, engages about part of the peripheral side of a foodstuff item, and bottom wall (13a, 13b) projecting from the side wall (11b) to, in use, locate with an underside of the foodstuff item and an upper wall (12a, 12b) projecting from the side wall to, in use, locate with an upperside of the foodstuff item.

7. A package as claimed in claim 6 wherein the upper wall is formed by two wall elements (12s and 12b) which are inter-engageable to form said upper wall.
- 5 8. A package as claimed in claim 7 wherein each wall element (12a and 12b) is a flap hingedly coupled to the side wall (11b) and moveable to at least partially overlap one another.
- 10 9. A package as claimed in claim 8 wherein the wall elements (12a and 12b) when in the partially overlapping position are joined together by adhesive (19).
- 15 10. A package as claimed in claim 8 wherein the wall elements (12a and 12b) include joining means (21, 22) whereby the wall elements when in the at least partially overlapping position can be joined together.
- 20 11. A package as claimed in any one of claims 6 to 10 wherein the bottom wall is formed by two bottom wall elements (13a and 13b) which are inter-engageable to form said bottom wall.
- 25 12. A package as claimed in claim 11 wherein each bottom wall element (13a and 13b) is a flap hingedly coupled to the side wall (11b) and moveable to at least partially overlap one another.
- 30 13. A package as claimed in claim 12 wherein the bottom wall elements (13a and 13b) when in the partially overlapping position are joined together by adhesive (18).

14. A package as claimed in claim 12 wherein the bottom wall elements (13a and 13b) include joining means (21, 22) whereby the wall elements when in the at least partially overlapping position can be joined together.
- 5
15. A package as claimed in claim 10 wherein the joining means are formed by slits (21, 22) in each flap (12a and 12b).
16. A package as claimed in claim 14 wherein the joining means
10 are formed by a slit (21, 22) in each bottom wall element (13a and 13b).
17. A package as claimed in claim 7 or 11 wherein the wall elements (12a and 12b) and bottom wall elements (13a and
15 13b) are of substantially oval shape.
18. A package as claimed in any one of the preceding claims when formed by a paperboard blank.
- 20 19. A package as claimed in any one of claims 1 to 17 when formed from plastic materials.
20. A foodstuff package substantially as herein described with reference to Figures 2 and 3 or Figures 4 to 7, or Figure
25 8 of the accompanying drawings.

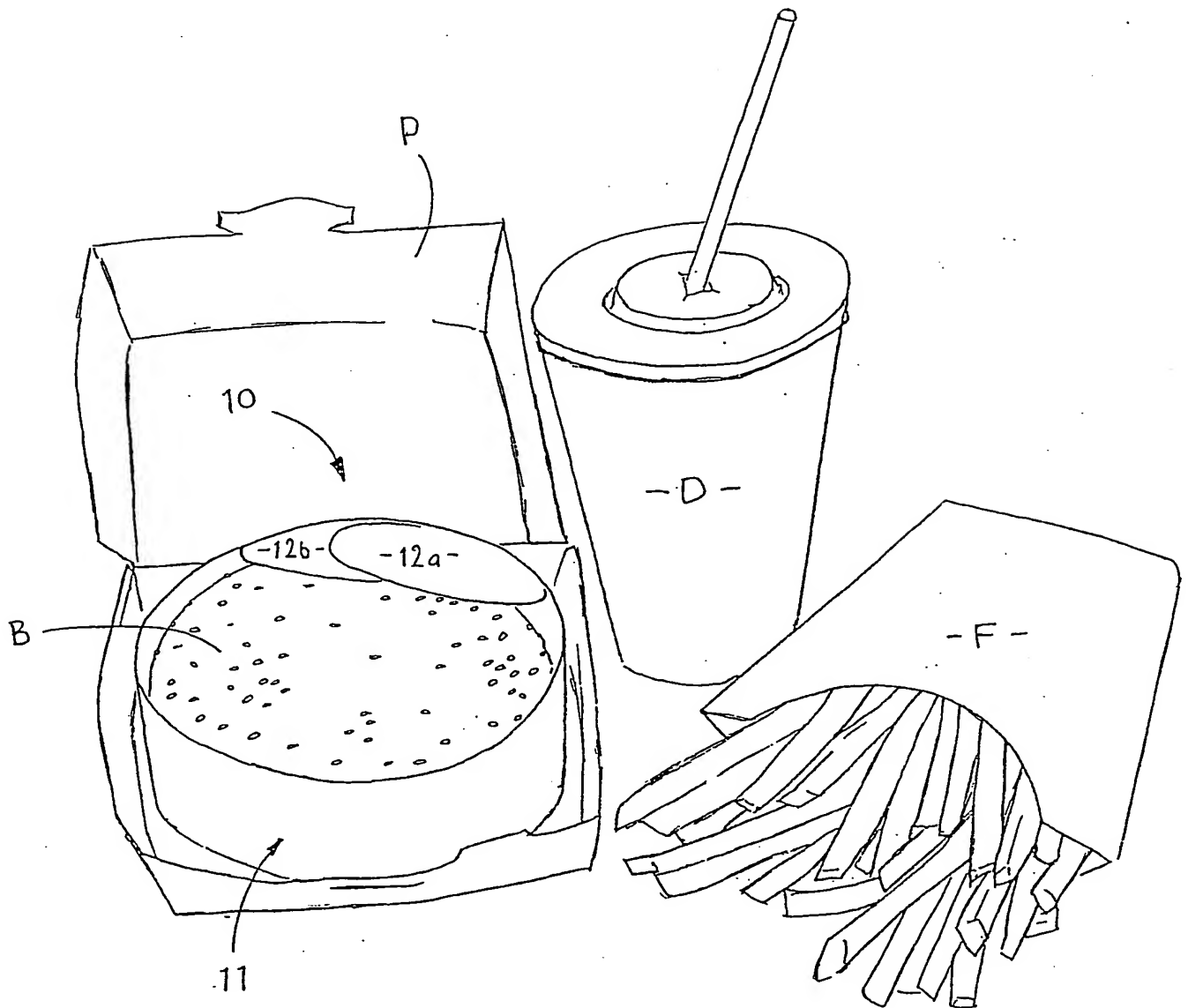


Fig. 1.

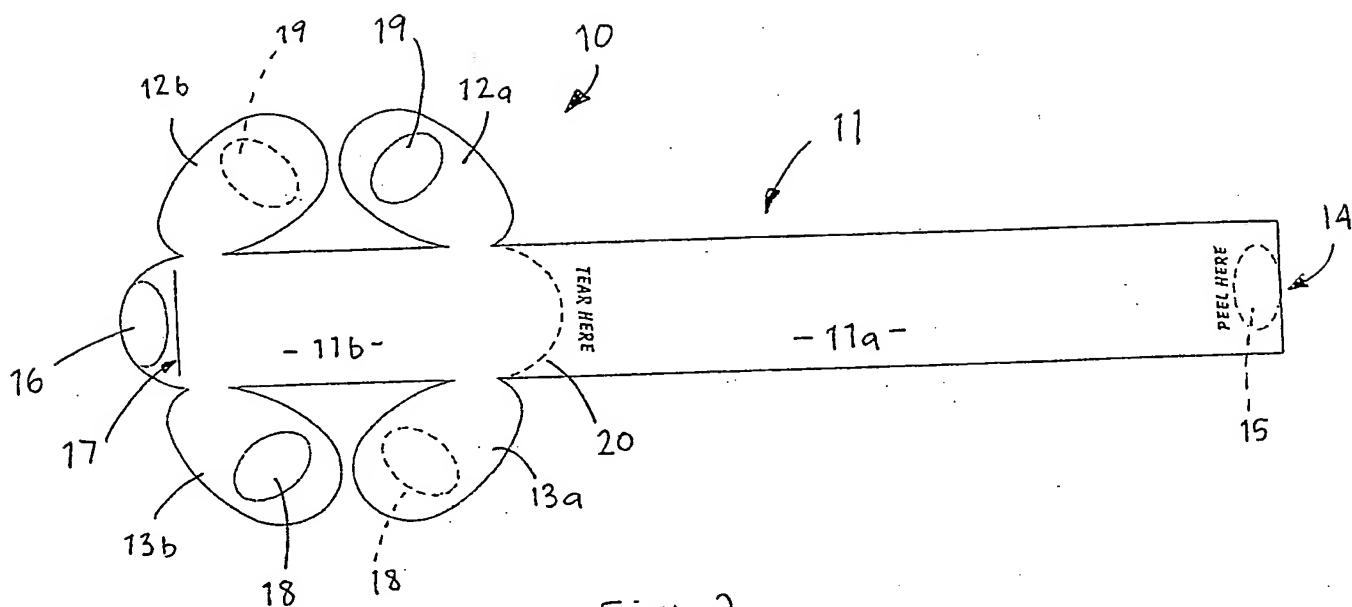


Fig. 2.

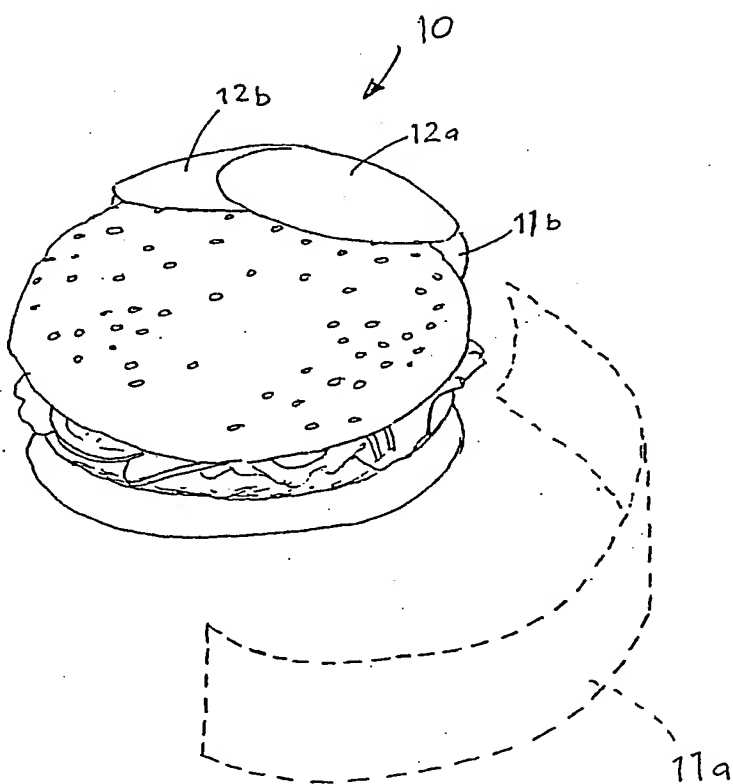


Fig. 3.

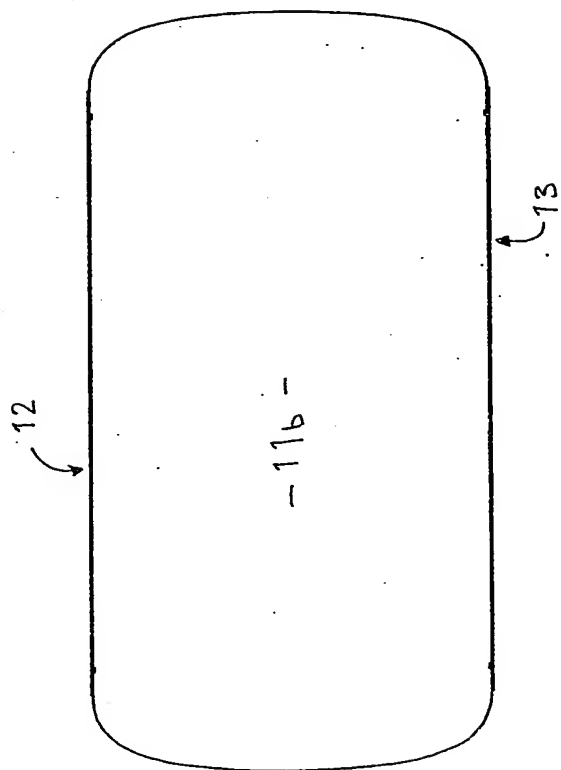


Fig. 4.

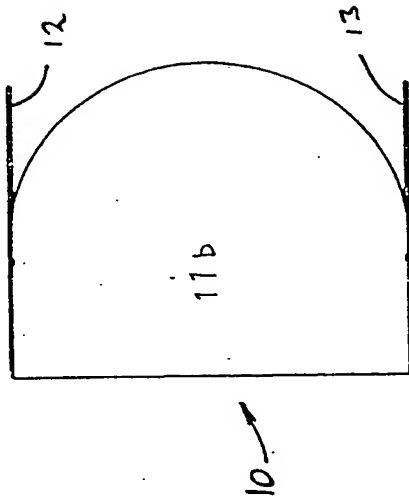


Fig. 5.

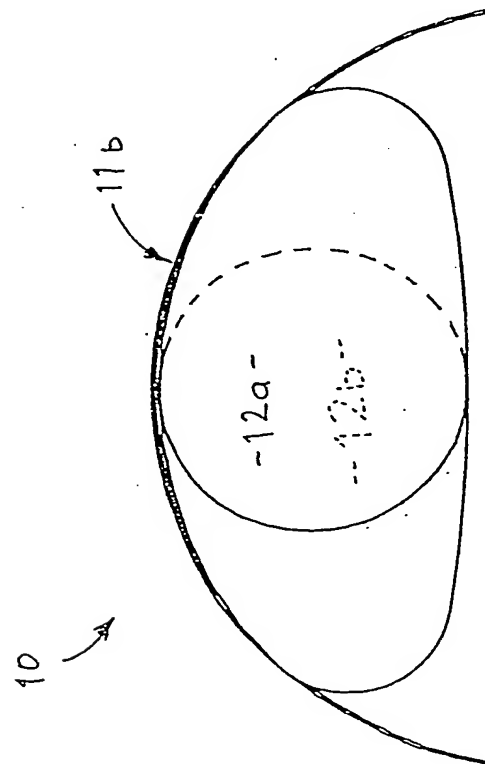


Fig. 6.

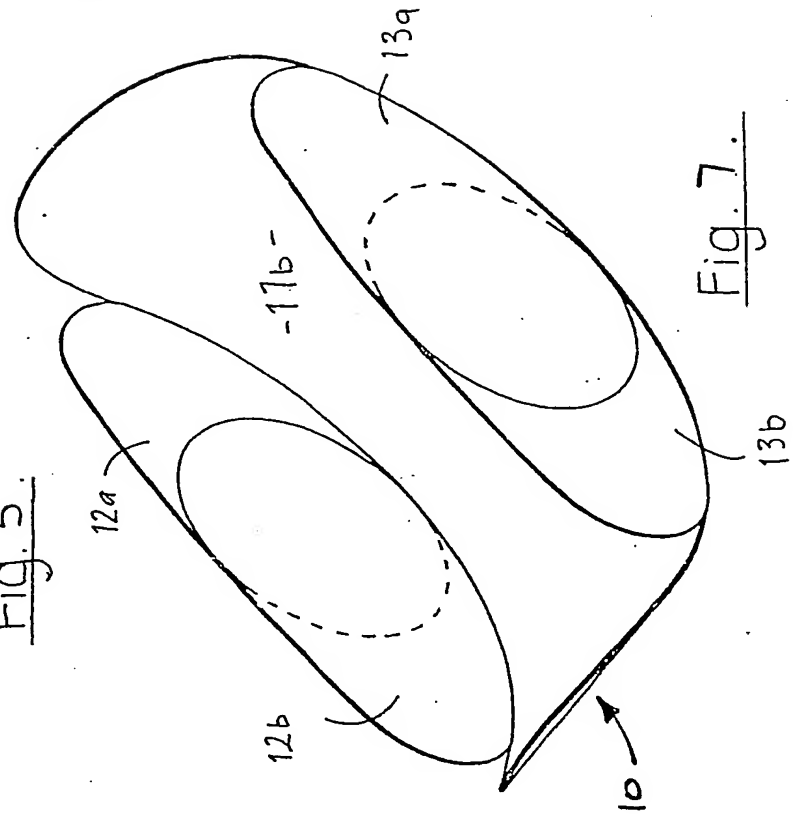


Fig. 7.

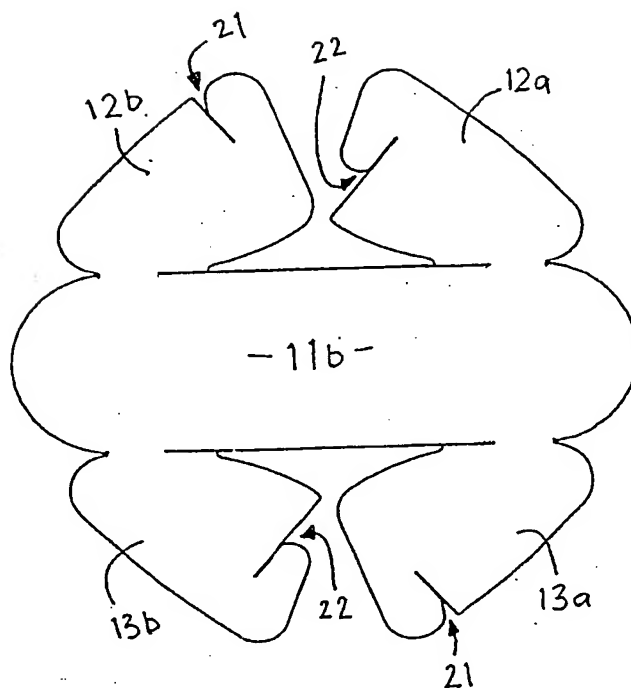


Fig. 8.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/NZ02/00133

A. CLASSIFICATION OF SUBJECT MATTER		
Int. Cl. ⁷ : B65B 25/00, 25/16, 25/22; B65D 5/54		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols) B65B 25/00, 25/16, 25/22; B65D 5/54		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched AU IPC B65B 25/00, 25/16, 25/22; B65D 5/54		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) DWPI B65B 25/IC OR B65D 5/ 65/ 27/IC AND (FOOD OR HAMBURGER OR ROLL OR SANDWICH)		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 4137333 A (DASWICK) 30 January 1979 See entire document	1 to 19
X	US 4777054 A (GREENHOUSE) 11 October 1988 See entire document	1 to 4,18
Y	See entire document	5 to 17,19
X	US 5042666 A (DOLENC) 27 August 1991 See entire document	1 to 4,18
Y	See entire document	5 to 17,19
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C <input checked="" type="checkbox"/> See patent family annex		
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
Date of the actual completion of the international search 18 September 2002		Date of mailing of the international search report 26 SEP 2002
Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaaustralia.gov.au Facsimile No. (02) 6285 3929		Authorized officer R. WEBER Telephone No : (02) 6283 2546

INTERNATIONAL SEARCH REPORT

International application No.

PCT/NZ02/00133

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5421508 A (BEALES) 6 June 1995 See entire document	1,18
X,P	US 6290121 B (OGBUE) 18 September 2001 See entire document	1 to 418
Y,P	See entire document	5 to 17,19
X	FR 2595666 A (CAPY) 18 September 1987 See entire document	1,18
X	FR 2665882 A (VATAIRE) 21 February 1992 See entire document	1 to 4,18
Y	See entire document	5 to 17,19
X	FR 2677621 A (VATAIRE) 18 December 1992 See entire document	1 to 4,18
Y	See entire document	5 to 17,19
X	FR 2796618 A (PRIMEL GASTRONOMIE SA) 26 January 2001 See entire document	1 to 4,18
Y	See entire document	5 to 17,19
A	Derwent Abstract Accession No.96-225023/23, Class Q31, JP 08085553 A: (YAMAZAKI) 2 April 1996 See entire abstract	

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/NZ02/00133

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report		Patent Family Member
US	4137333	NIL
US	4777054	NIL
US	5042666	NIL
US	5421508	NIL
US	6290121	NIL
FR	2595666	US 4795648
FR	2665882	NIL
FR	2677621	NIL
FR	2796618	NIL

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